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ABSTRACT

This planning guide is designed to aid communities and service agencies in their choices for setting up transportation services for the elderly. Preliminary steps involve defining service objectives, and may also involve determining need; several alternative methods of predicting demand are discussed. Alternatives to actual service include the special bus for the elderly. This service may be provided directly by the coordinating agency and include vehicles such as specially equipped vans, school buses, and station wagons. Cost, revenues, and legal issues of such service are discussed in depth. Another alternative is the reduced fare program whereby older adults may ride existing public transit at a reduced fare. Volunteer services, with private groups providing transit alternatives to the elderly are also discussed. Tables list federal, local, and private funding sources for providing transportation for older Americans. (MBR)

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TRANSPORTATION SERVICES FOR THE ELDERLY

A Planning Guide

prepared for

The N. C. Governor's Coordinating Council on Aging

Glenn Orlin

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I. GOAL-SETTING FOR ELDERLY TRANSIT

A necessary preliminary to setting up and operating any program is to outline the objectives that will be met. The set of objectives selected will more or less dictate the type of service that can be offered, or at least restrict the choice to a relatively few types. The agency that will coordinate the elderly transit program should consider several questions about its program goals:

1. Should the program be geared toward stimulating travel for goods, services, and social contact, or toward reducing the need for travel by increasing the delivery of goods and services to the home, or toward both?

2. What is the target population? What should be the age and income criteria (if any) for individuals who wish to participate in the program?

3. Which trip (or delivery) purposes will be allowed in the program, and which will not be?

4. What should be the geographic range of the program - at the town, city, county, or multi-county level?

Goals should be set very precisely and conservatively at the outset. The more specific the problem to be solved is, the easier the coordinating agency will be able to research it and to identify a solution. For example, if the agency perceives that rural elderly persons need better access to medical services more than any other type of service, it should concentrate on bringing people to hospitals and clinics, or medical personnel to homes, rather than complicating

the problem by providing auxiliary services for lesser needs (in this case, perhaps, the desire to attend social events at senior centers). Not only does routing and scheduling become more difficult with a more comprehensive service, but the program becomes identified less as a special purpose one, and more as one that duplicates the functions of a competing transit or taxi service, if there are any. Service expansions should be undertaken only: (1) if there is ample evidence that there will be a sustaining patronage for the new service (otherwise the agency may consider operating a charter service to meet short-term objectives); (2) if funding - whether it be federal, state, local, or a combination - is secure for at least three to five years (the period during which initial overhead can be expected to be overcome with a small but successful program); (3) if no serious legal action against the expansion is foreseen (even if the courts rule in favor of the agency, the cost of delays and lawyers fees may be too much to bear). Elderly transit programs usually are not in the financial position to risk even minor losses on service expansions, so the agency should not become too ambitious and try to solve all the elderly's problems, and perhaps not even all their transportation problems.

II. PREDICTING DEMAND FOR ELDERLY TRANSIT

Regardless of how much the elderly need transportation services, use of elderly transit will be determined only by the demand for the services. Demand for a product of a service depends upon knowledge of it, a desire to use it, and accessibility to it. For all these reasons, the demand for elderly transit in rural areas may be far lower than in cities because of the relative unfamiliarity with transit operations, the undesirability of ride-sharing, and the inaccessibility to the service in rural areas (longer trips to meet a fixed-route system, and a lack of telephones to connect to a dial-a-ride system). In predicting demand, therefore, identifying the location and general travel desires of the entire target population may be justified in an urban area, but prediction in rural areas should be based on locating individuals who have specifically asked for a service, or whose past behavior have demostrated positive proof that they would use the system. In most of the alternative systems illustrated in this paper, the initial overhead is a large part of the total cost; as important as demand prediction is, elderly transit systems will not be able to afford the sophisticated analyses undertaken by conventional transit systems.

The household survey, a popular and expensive tool of transportation planners for the last thirty years, is clearly inappropriate for elderly transit. Not only is the cost of a large pool of interviewers prohibitive (and often the interviewees are paid, too), but the information collected would be unnecessary and inaccurate. The questions on trip-making would be unnecessary because the travel desires of the elderly are well-known and are fairly consistent over all parts of the country. The hypothetical

question asking "Would you ride elderly transit regularly if it were available?" would be answered inaccurately, since many would reply affirmatively without really knowing what transit is (even if the questions were phrased more precisely) and many others would reply that they would use it regularly so that they could have it available in the pinch, or so that friends could use it.

A more direct method would be to announce in the local media that a new elderly transit service is being planned and to ask for calls or letters from people who would use the system. Apparently more "honest" answers have been solicited in this fashion, as it has been utilized successfully around the U.S. The large number of idle responses in household surveys are also avoided using this technique.

Another alternative is to locate the elderly without contacting them directly. For several cities in North Carolina (Charlotte, Greensboro, Winston-Salem, High Point, Durham and Raleigh) the 1970 Federal Census of Population has tabulated the number of elderly individuals on a block-by-block basis. Fixed-routes systems could serve those blocks with high concentrations of the aged. In smaller cities and rural areas, the coordinating agency could secure the names and home addresses of elderly persons held by social service agencies - they being most apt to use the service - and route the transit system to them.

Finally, there is the option not to predict demand at all, but to run a demand-responsive (dial-a-ride) system which will identify places where demand is high. A fixed-route system can be started later where it is found that many trip origins and destinations are strung out in a line.

Alternatively, the agency could survey the demand-responsive system riders to discover what service adjustments would serve them better.

The method used to predict demand, at best, will only keep the program from becoming completely out of tune with the public's demand for the service. With an innovative service - that is, one that is completely new in an area and with which the residents have little experience to relate - the true level of demand will not be determined until after the system has been in operation for a year or two. Consequently, analyses are unwarranted.

III.A. SPECIAL BUS SERVICE FOR THE ELDERLY

The coordinating agency can most directly provide the services it wants by owning and operating its own system, with its own fleet of vehicles, or by contracting out for just the vehicles, or for just the management services. Under reduced-fare and volunteer programs, the elderly receive only those transportation services that coincide with bus routes and schedules and volunteer trips, respectively. A system controlled by the agency can provide transportation for the elderly where and when their trip desires occur, within financial and legal limitations. But the financial limits are imposing, since this alternative is the most expensive form of elderly transit, and the legal limits are at least as troublesome, since this alternative comes the closest to duplicating the services of competing common carriers.

To the present, most agencies operating such systems are organizations independent or semi-independent from government and corporate enterprise. They are often cooperatives or non-profit corporations. They are precisely the types of organizations that are eligible for Federal financial assistance through the 16(b)(2) program, which will be outlined later in this section. When part of the effort is contracted out, it is usually the reponsibility of managing day-to-day operations. The initial planning as well as the decisions to expand or reduce service are tasks generally retained by the coordinating agency.

Once the initial planning has been completed, the agency should employ an individual whose responsibilities would include promotion, public relations, and interagency coordination. Only part-time secretarial assistance may be affordable at the outset; but in any event,

a full-time secretary should not be hired until adequate long-term funding is secured. An elderly transit program, to repeat, is a shoestring operation, and cannot afford to neatly divide work duties among several specialists, and that includes secretarial specialists.

The field staff is composed of drivers and mechanics. Drivers, if they are to be full-time wage-earners, should be properly licensed and fully-trained, and verification of their satisfactory physical condition and mechanical ability should be required. The agency probably should retain a local mechanic to perform periodic and emergency maintenance service until the system has 25-30 vehicles or more, at which point the agency should consider internalizing the maintenance job by building its own shop and hiring a staff of mechanics.

The most typical vehicles used are 10-14 passenger vans which are sometimes modified to increase the headroom. They have an expected life of 100,000-200,000 miles, but the agency should plan to purchase new vehicles before that, since maintenance costs skyrocket when vehicles grow old. The capacity of the drivers to perform certain preventive maintenance chores has shown to be important not only in saving on short-term maintenance costs but in also extending vehicles life and reliability.

The next most common elderly transit vehicle is the school bus, which seats over forty persons and is relatively inexpensive to buy or lease. School bus utilization is fraught with problems, however. First of all, the steep steps make it more difficult for the elderly to board than general transit buses, the seats are not as comfortable, amd most lack air conditioning. Second, operators who use buses that are leased from school systems are subject to a Federal excise tax levy (around 10% of the vehicle's appraised value).

Third, in many states school buses used for non-school purposes must have their "School Bus" markings covered and their flashing lights deactivated. Fourth, school buses are not as readily available as they might seem to a passerby who sees a lot full of them. Fleets are normally staggered so that the vehicles might pass rigorous monthly maintenance examinations. In addition, schools are using the buses more than ever with the increasing amount of off-campus school activity. Fifth, insurance premiums fall about halfway between those paid on buses used solely for school purposes and those paid on general passenger carriers, which are quite high. In the future, the rates will probably fall to the level experienced currently by limousine and sightseeing bus operators, but until the insurance industry sets guidelines the rates will be decided on a case-by-case basis, turning on such criteria as driver quality and the share of non-school trips made on the buses. Sixth, since many school buses are old, they get very poor gasoline mileage and have difficulty climbing steep grades (this latter point alone may rule out extensive school bus usage in the Appalachian counties of North Carolina).

In a few cases, sedans and station wagons have been used to transport the elderly. They certainly provide more comfort and convenience than other vehicles, but they are the most expensive to operate on a per-seat mile basis (school buses are the most ecomomical on a per-seat basis, but this is deceiving, since the low demand for elderly transit almost assures that no school bus will be filled even close to capacity, unless it is chartered).

In routing elderly transit vehicles, the agency must decide between a system with fixed routes and one that is demand-responsive - that is,

one that has no set route but travels from door-to door in response to user demand. Table 1 illustrates those characteristics of the user population that tend to favor one scheme over the other:

TABLE 1

Characteristic	Fixed Route	Demand-Responsive
Population location	Concentrated in lines	Dispersed
Timing of trips	Flexible	Inflexible
Can get to pickup point	Yes	No
Hard to make public understand schedules and routes	No	Yes
High % of households don't have access to telephones	Indifferent	No

The availability of a telephone is vital to demand-responsive service, because calling in to a dispatcher is the only way the service can be provided on short notice. The elderly could mail in their travel requests a day or so ahead of time, and many, in fact, do plan their trips that far ahead of time. But even then they have to hope that the dispatcher has received their message in time. A ubiquitous telephone system is practically a prerequisite for demand-responsive service. Data on the telephone network's coverage is available by company (not by geopolitical units) and only as recently as 1973 (see Table 2). The agency should contact all the companies within the planned service region for updated and geographically ' oken-down information, if it is obtainable.

When laying out routes (for a fixed system) or a service area (for a demand-responsive system) in rural areas, some tested guidelines should be followed:

TABLE 2

TELEPHONE COMPANIES OPERATING IN NORTH CAROLINA

Phone Company	Percent households in service area having phones	
	1972	1973
Barnardsville Telephone Company	85%	85%
Carolina Tel. & Tel. Company	78	82
Central Telephone Company	73	83
Citizens Telephone Company	86	N.A.
Concord Telephone Company	95	90
Eastern Rowan Telephone Company	81	95
Ellerbe Telephone Company	82	85
First Colony Telephone Company	60	60
General Telephone Co. of the Southeast	N.A.	83
Heins Telephone Company	95	N.A.
Lee Telephone Company	72	95
Lexington Telephone Company	83	84
Mebane home Telephone Company	80	80
Mid-Carolina Telephone Company	54	65
Mooresville Telephone Company	90	90
Norfolk & Carolina Tel. & Tel. Co.	87	84
North Carolina Telephone Company	85	70
North State Telephone Company	70	85
Oldtown Telephone System, Inc.	91	92
Randolph Telephone Company	80	85
Saluda Mountain Telephone Company	60	60
Sandhill Telephone Company	93	94
Service Telephone Company	60	60
Southern Bell Tel. & Tel. Company	88	90
Thermal Belt Tel. & Tel. Company	70	70
United Tel. Co. of the Carolinas, Inc.	76	79
Westco Telephone Company	70	80
Western Carolina Telephone Company	73	80

1. The average speed for a fixed-route vehicle in a rural area should be figured as 40 to 45 mph. Little allowance is necessary for flag-down stops along the highway.

2. The time between the pickup and discharge points should be no greater than 90 minutes for any passenger, unless the service is providing only for (non-emergency) medical trips, in which case the elderly may be willing to travel two or even three hours in each direction.

3. Depending upon the route's length, the schedule should include five to ten minutes of slack time to allow the driver to cope with minor delays and still meet the schedule.

4. In urban areas, the origin-to-destination time should not exceed one hour, and average speeds should be figured as 15-20 mph (the slack time would be approximately the same).

Since the service would be provided exclusively for the elderly, there must be a registration process and the distribution of some form of identification for those eligible. The actions taken by the Central Ohio Transit Authority (COTA) are worthy of note in this regard. COTA allied with the Franklin County (Columbus, Ohio) Council on Aging to inaugurate a reduced fare program, but they faced the problem of registering elderly persons and distributing identification cards to them. In the registration drive they advertized sign-up locations and times both through the mass media and at places frequented by the elderly, especially senior centers, clinics, drug stores, social service agency offices, and parks. To qualify, an individual had to present proof of name, address, and age. Birth certificates, passports, Medicare cards, driver's licenses and baptismal records were all acceptable indications of age. Collecting age information served to weed out ineligible applicants, but collecting

addresses also allowed COTA to discern what neighborhoods were heavily populated with elderly transit riders, so that it would be better able to plan schedules and routes.

Registration booths were set up in senior centers, but also in branch offices of several local banks. This was of psychological importance to the registrant, in that it helped to erase the stigma of welfarism attached to elderly transit. Instead of signing up for welfare-type benefits at a social service agency, many individuals felt as though they were making a financial transaction of sorts when they registered at a bank. In return for space and personnel, the agency should expect to pay the banks a flat amount or on a per-registrant basis (not more than 10¢), but the banks may provide the service for free if it is pointed out to them that they would be providing a public service with excellent promotional potential, and that many elderly persons have been known to start savings accounts in the banks where they registered.

For identification, COTA, distributed laminated ID cards with photographs called "Good as Gold" cards. An effort was made to establish "Good as Gold" cards not only as identification for the reduced fare program, but for all general purposes. Many elderly people have a need for some secure identification and proof of status, since they no longer possess driver's licenses, which is the standard ID for everyone else. The effort was successful - most banks and may retail stores accepted "Good as Gold" cards as identification for check payments and check cashing. Several stores initiated senior citizen discount policies since there was a standard form of identification. After one year of COTA's registration and ID distribution effort, over one-half of the metropolitan area's elderly had signed up for the reduced fare service.

In promoting an elderly transit system, brochures and media advertising are useful, but the most effective means is by word of mouth and by displaying the vehicles prominently. For easier identification, they should be painted bright and attractive colors; and if a dial-a-ride system, the phone number for the system's dispatcher should appear in large numerals on the vehicles (painting them the same color is not as important as utilizing a consistent graphics scheme).

In printed advertising, the phone number of the service (whether it be for general information or to the dispatcher) should stand out. If it can be arranged with the local telephone company, the number should be less than seven numerals, preferably two or three. If this is not possible, the agency should request a seven-numeral sequence that spells an appropriate acronym like 287-7433 (BUS-RIDE) or 465-3287 (GOLDBUS). The number should also appear in the white and yellow pages of the local telephone book, under all conceivable subheadings. Directory listing are especially effective where there is a large influx of new elderly residents, since newcomers use the directory with far greater frequency than do longtime residents.

Cost. The most invariable expenditure experienced by most elderly transit systems is overhead: the salaries of managers, secretaries, bookkeepers, and dispatchers, and other office-related costs (rent, utilities, and supplies). Overhead can be lessened only by turning to volunteers to fill certain positions, and by blurring distinctions between job responsibilities, so fewer people could accomplish more tasks, albeit not as efficiently.

Whether or not drivers are paid has an enormous effect on the cost of the system. It is the largest single item, amounting to about 30% of the total cost. The prevailing wage for drivers in predominantly rural states like North Carolina is $2.00-3.50 per hour and $4000-8000 per year for full-timers. Of course, part-time employees are paid significantly less, and because they often are individuals who drive as a sideline to their regular activities (such as housewives) they have a more casual attitude and are able to develop more of an affinity with the riders. But if the vehicles are to be driven over long, difficult routes, and if the days are generally long, professional drivers would be preferable.

New vehicles may be obtained with a Federal grant (see the discussion of the 16(b)(2) program below). Old vehicles may be purchased from school districts or from the General Services Administration of the U. S. Government. The capital cost (including taxes, license and registration) is surprisingly small; on a per-seat mile basis, it is less than the normal expenditure on maintenance.

Gasoline and diesel fuel are usually purchased at the retail price, but if the system is operated by a non-profit corporation, the Federal tax is refundable. Oftentimes dealers will sell fuel at a discount for volume sales. Sometimes the local municipality will sell its fuel to elderly transit systems at cost or even at a subsidized rate, as low as 20¢ per gallon. If the system is to serve a shopping center, the coordinating agency may be able to negotiate a cheaper rate at one of the center's garages in return for bringing new patrons to the center.

The insurance cost varies from $500-1500 per year per vehicle for systems with large loading capacities, fares, and paid drivers. Since most companies don't know how to price insurance on small elderly transit systems, the coordinating agency should shop around.

Systems employing vans or passenger cars, charging no fares, and utilizing volunteer drivers, should pay rates almost as low as for ordinary private automobiles.

In summary, an elderly transit system providing close to full-time service (40-50 hours per week) and using professional drivers incurs costs that generally vary between 36¢ and 40¢ per vehicle mile. With management, initial costs run about 45¢ per vehicle mile, but after the system becomes established and schedules and routes become routine, the cost falls to around 37¢ per vehicle mile.*

Revenues. Sources of funds for elderly transit are public and private groups and foundations, ongoing Federal and state subsidies, and fares. In setting fares, the coordinating agency should examine the price and quality of alternative modes of travel (taxis, buses)in the area and price its own service comparably. The proper procedure is to set a high fare at the outset, experimenting with periodic reductions, rather than to start too low and attempt to raise the fares later. Most fares range between 2¢ and 5¢ per passenger mile. A more detailed discussion of fares is included in the section on reduced fare program.

Government funds are available from several sources. One receiving much attention is Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended, which authorizes grants to private nonprofit corporations for the provision of transportation services to meet the specific needs of the elderly and the handicapped. The 16(b)(2) funds are to be used only towards purchase of vehicles and supporting equipment, the Federal government footing 80% of the bill on approved applications when state and local authorities can match it with their own 20% share.

* For cost figures on comparable rural systems, see Table 5.

Table 3

TYPICAL TOTAL COSTS
PER SEAT-MILE IN A RURAL ENVIRONMENT

	Car	Van	Small Transit Bus	Medium Transit Bus	Large Transit Bus	School Bus
Capacity (Seats)	5	10	20	30	50	44*
Speed (MPH)	30	25	18	18	15	15
Fuel Consumption (mi./gal.)	13	10	7	6	5	7
Fuel Type Cost	Gas $.50/g	Gas .50/g	Gas .50/g	Diesel .38/g	Diesel .38/g	Gas .50/g
Fuel	.039	.050	.072	.064	.076	.072
Maintenance Rolling Stock	.045	.090	.125	.125	.150	.140
Injury & Damages	.025	.030	.042	.042	.050	.050
General $ Misc.	.050	.060	.083	.083	.100	.100
Admin.	.035	.042	.058	.058	.070	.070
Wage $3/hr.	.100	.120	.167	.167	.200	.200
Total Operating Cost	.294	.392	.547	.539	.646	.632
Captial Cost	.037	.069	.125	.115	.167	.054
Total Cost/ Veh. Mile	.331	.461	.672	.654	.761	.686
Total Cost/ Seat Mile	.066	.046	.034	.022	.015	.016

*Adult Seating Configuration

SOURCE: Governor's Task Force on Rural Transportation, Rural Transportation in Pennsylvania, Problems and Prospects, Volume II, Harrisburg, May 31, 1974, p. 127.

In North Carolina applications are received by the Mass Transit Division (MTD) of the Department of Transportation in Raleigh, and reviewed according to criteria it has developed (which must be approved by UMTA, the Urban Mass Transportation Administration). UMTA normally rubber-stamps the applications screened by the MTD. All UMTA grant programs, including 16(b)(2), are to be applied to areas in and around cities of 5000 population or greater, but some rural operations are allowed if they are part of a larger urban network.

For the upcoming fiscal year, North Carolina has been allocated $494,000 to disburse through this program. For those funds, the MTD received 62 applications, several from local councils on Aging. The majority of the groups want funds for one vehicle, usually a 12-15 passenger Dodge, Chevrolet, or Ford minibus or van. Few groups asked for funds for more than two vehicles; a few want to buy school buses. Most systems would provide demand-responsive service; individuals would call a dispatcher one or two days before their trips would be made. Two applicants requested funds for on-board radios, which would permit instantaneous demand-responsive service.

This year, 32 projects were approved by the MTD, and at this writing final approvals are awaited from UMTA. The projects represent 40 of the original 62 applicants (eight of them were consolidated with other requests). During the past year the applications were evaluated on a point system according to six criteria. The criteria are listed below, with the first and second being most important (i.e., having the largest possible point value) and the remainder ranked in descending order of importance (and possible score).

1. Management and Financial Capability

   How will the program be administered at local level? What relationship, if any, does the private nonprofit agency share with the existing transit operator? Who will operate the program? What is the experience, etc. of the individual (s) who will operate the program? What experience has the private nonprofit agency had in providing transit service? Who will maintain the transit equipment? How will the operational costs of programs be financed? (A review of the private nonprofit agency's fiscal reports may be necessary).

2. Coordination with Other Agencies

   Has the private nonprofit agency made an attempt to coordinate the proposed service with other private and public agencies in the area.

3. How many people are expected to be served per day? Per week? How many passenger-miles would be incurred per day? Per week? (passenger-miles = number of passengers X number of miles traversed). How were these patronage figures developed? Were E and H needs, expected patronage, etc. estimated in a planning study?

4. Comprehensiveness of Service

   Will service be provided to elderly, handicapped, or both? For what purposes (e.g., shopping, recreation, work, school)? Will buses be equipped with: a) a bus driver who will assist passengers onto the bus; b) an attendant who will assist the bus driver in caring for the passengers; c) low steps, wider doors, and hand rail which will facilitate easier movements into and out of the vehicle; and/or d) lifts which provide service for riders in wheel chairs?

5. Commitment to Continue Service

   Will private nonprofit agency provide service for the life of the equipment? Will private nonprofit agency provide service beyond the life of equipment?

6. Information and Promotional Efforts

   Will the private nonprofit agency publicize the program? How?

In future years the criteria may be altered and broadened, but it is doubtful that the method of evaluation will change significantly.

Other funding opportunities, in particular those authorized by the Older Americans Act, will be discussed in a later section.

Legal issues. Public utilities regulations are normally exempted for systems that do not charge fares or do provide transportation services to only a closed membership. Often if the service does not maintain fixed routes or schedules, or if it operates entirely outside a municipality, it is exempted. The North Carolina Public Utilities Commission has regulatory jurisdiction over "for-hire" services that can seat nine passengers or more per vehicle. The most troublesome legal problems for elderly transit, however, probably stem from municipal public utility ordinances, which vary widely across the state. The coordinating agency should take time to review the state's Public Utilities Law (Chapter 62 of the General Statutes) and local utilities ordinances.

IV. REDUCED-FARE PROGRAMS

Reduced-fare programs were among the first attempts to specially accommodate the transportation needs of the elderly. Nearly all have been money-losing propositions, because the percentage drop in fares has hardly ever been balanced by a reciprocating rise in patronage. But most types of elderly transit service have costs exceeding revenues anyway. In providing elderly transit, the question should not be how to maximize profits but how to select the program that will most cost-efficiently serve the needs of the aged in a particular area. In an urban area where the level of transit service is high, the most efficient means of providing transportation may be to lower the fare to allow greater use of the service, rather than to duplicate existing systems.

Table 4

SENIOR CITIZEN FARE PROGRAMS
SELECTED CHARACTERISTICS FOR SIXTY-TWO AMERICAN TRANSIT COMPANIES
January 1972

Variable	Number	Percent
1. Fare Reduction [1/]		
a. 25%	7	11.1
b. 25-50%	39	61.9
c. 50% [2/]	12	19.0
d. General pass	5	7.9
2. Age Eligibility		
a. 65+	42	67.7
b. 60+ [3/]	11	17.7
c. 58+	1	1.6
d. None of not reported	8	12.9
3. Income Test		
a. None	51	82.3
b. Low income	9	14.5
c. Unknown	2	3.2
4. Time Restrictions		
a. None	31	50.0
b. Off-peak	28	45.2
c. Unknown	3	4.8
5. Change in Elderly Ridership		
a. None [4/]	9	14.5
b. Over 15% increase [5/]	7	11.3
c. Not clearly measured or identified	46	74.2

SOURCE: The American Transit Association, "Senior Citizens Fares -- Data for Individual Transit Systems", 475 L'Enfant Plaza, S. W., Washington, D. C. 20024, dated January 1, 1972, from questionaires returned by transit operators. The table also included data on fourteen Canadian systems.

1/ Adds to 63 systems due to differing bus and rapid transit reductions in one system.

2/ Includes one system which required pre-purchase of a monthly pass.

3/ Includes seven systems in which male and female age-eligibility is different (six = 65/62; one = 62/60). Of the remaining four systems, three specify age 62; one, age 60.

4/ Includes one system citing continued decline.

5/ Includes three systems for which information was available from other sources.

A survey by the American Transit Association reveals some of the characteristics of reduced-fare programs (see Table 4). Most fare reductions are in the 25-50% range, but most programs have been unable to identify the resultant increased ridership. The program generally has been available to persons over 65 years of age, regardless of income. Reduced fares are restricted to off-peak hours usually in larger cities with heavy rush-hour patronage. Studies in several large cities have shown that a significant number of new off-peak-hour elderly patrons were formerly peak-hour riders who adjusted their schedules to take advantage of the lower fare (see Table 5).

Most Programs require the elderly to pay the lower fare with coin and the presentation of ready identification. The Cleveland (Ohio) Transit System allows the elderly to purchase a year-round pass (with a Photo ID) for $100, good for unlimited free rides during off-peak hours and a 25¢ reduction for peak-hour trips. This recognizes one of the travel barriers perceived by the elderly; the complication of going through one's wallet or purse while in a public place. On the other hand, many of the poorer elderly have a problem securing $100 for a pass at any one time during the year.

Because of the difficulty elderly persons experience while walking to, boarding, and alighting buses, many refuse to make certian trips. The lower fare will not alter this decision, for the elderly value convenience and security more than cost. A comprehensive reduced-fare program, therefore, would extend to taxi passengers. Both bus and taxi-riding elderly people have been subsidized through funds authorized by Titles III and VII of the Older Americans Act.

TABLE 5

SELECTED CHARACTERISTICS OF FIVE OFF-PEAK REDUCED FARE PROGRAMS

City	Program Began	Fare Change	1970 Pop. 65 and +	Percent Registered 1st 10 mo.	Off-peak Ridership Change	Amount of Shift From Peak	Indication of New Riders	Estimated Annual Revenue Loss During Off-peak Hours[1]
Chicago	4/20/69	-50%	400,000	--	+7%, +99%[2]	slight	none	$7,077,350
Los Angeles	-/-/71	-33%	397,000[3]	--	+58	25%	24% new off-peak rides	136,125
Miami (Dade County)	10/1/72	-50%	186,000	--	+34.5%	substantial	not reported	1,091,553
New York City	7/1/69	-40%[4]	843,000[5]	71%	+26.7%	slight	nearly all	10,764,000
Pittsburgh (Allegheny Co.)	2/1/70	-44%	175,900	45%	+46.5%	35%	2.54% of all registered	545,000 - 712,000

1/ New York, Chicago, and Miami based on simple formula multiplying ridership increase, non-peak hours only, by the reduced fare. Pittsburgh study estimates range of revenue loss based on expected revenues, given transit ridership trends, had reduced fare not been instituted. Los Angeles study provides much lower figure, citing offsetting gains from 24% increase in off-peak rides.

2/ High and low estimates from two seperate studies.

3/ City only. Source: County and City Data Book 1972, U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census.

4/ Subsequently 50%, due to system-wide fare increase, January 1, 1970.

5/ Includes reduction for elderly working full-time ineligible for program, and for institutionalized elderly.

SOURCE: "Reduced Fares for Senior Citizens," City of Chicago, Department of Human Resources, Division for Senior Citizens, 1970; Morlok, Edward K., Walter M. Kulash, and Hugo L. Vandersypen, "The Effect of Reduced Fares Plans for the Elderly on Transit System Routes," The Transportation Center, Northwestern University, Evanston, Illinois, March 1971 (citing, for Los Angeles ridership figures, Schneider, Lewis M,, Marketing Urban Mass Transit: A Comparative Study of Management Strategies, Boston: Harvard University Graduate School of Business Administration, 1965); "Effects of Reduced Fare on Senior Citizens Bus Ridership in New York City," Division of Transportation Planning, Polytechnic Institute of Brooklyn, November 1969; Roszner, Ervin S. and Lester A. Hoel, "Impact on Transit Ridership and Revenue of Reduced Fares for the Elderly," Transportation Research Institute, Carnegie Mellon University, Pittsburgh, July 1971; Peter J. Andolina, "Reduced Fares for Senior Citizens; The Miami Experience," Metropolitan Dade County Transit Authority, November 1973.

The initial decisions involved in starting a reduced-fare program are: (1) the choice of a target population (this may depend ultimately on the financial assistance programs that are available, and their requirements); (2) the methods of registration and identification (these can be similar to the techniques mentioned in Section III); (3) the method of payment and reimbursement; (4) the size of the fare; and (5) the extent of user restrictions.

On reinbursements, the transit and taxi companies could keep a record of elderly fares, but this procedure is complicated where there is not a flat fare (the case for most bus systems and virtually all cab companies). But setting a flat reimbursement rate, based on the cost of the average-length elderly trip, the driver needs merely to tabulate the number of elderly riders. Another option is for the coordinating agency to sell transportation stamps to the elderly at a reduced rate, and to reimburse the companies, but this would entail a much heavier overhead (the cost of printing and distributing the stamps).

The size of the fare reduction should be significant; at least 25%, more preferably 40-50%. Smaller reductions will produce few riders and an even larger deficit may occur than if the reduction had been greater.

Few programs operate without some restrictions on the applicability of the reduced fare. Many identify certain hours, days, geographic areas, and even trip purposes for which it applies. Whatever combination of restrictions is selected, the coordinating agency should alter it only if absolutely necessary, as ridership levels are highly responsive to administrative changes. An instructive case is that of the reduced-fare program in Arlington County, Virginia (in suburban Washington, D. C.)

where the coordinating agency contracted with a local cab company to provide reduced-fare service. The restriction "package" progressed through several phases, with consequently significant changes in ridership.

TABLE 6

Phase	Trips Allowed	Ridership/Month
1	Only to county services and agencies	100
2	Anywhere in county	700
3	" + outside county for medical and dental purposes	2500
4	Work trips disallowed	1400
5	Shopping trips disallowed	1200
6	All but important trips discouraged	950

The Arlington County agency faced the problem of altering its service frequently, according to the number of patrons and the funding available. Until transportation subsidy programs cease being erratic, there is little hope that a reduced-fare program will be able to maintain a stable level of service.

The cost of a reduced-fare program depends upon the size of the target population, the fare, and the restriction package. The deficits incurred in five major cities are presented in Table 5. For the Arlington program, with an elderly target population of about 2000, the cost was almost $43,000 per year, or $21 per capita per year. In certain urban areas where transit is ubiquitous and highly accessible, a reduced-fare program may be the most cost-effective alternative.

V. VOLUNTEER SERVICES

Transportation programs involving volunteers are among the most prevalent. Church and senior-center service, and other locally-sponsored aid-to-the-elderly volunteer programs are viable alternatives for elderly transit, given that the aged are willing to accept the restrictive time aspect of a volunteer system (they can travel only when a volunteer picks them up) in exchange for door-to-door service and a cheaper fare (or no fare at all). The main difficulty, once again, is not the lack of an infrastructure for a volunteer service; on the contrary, there have been several reports in the media that persons are enlisting for volunteer service at a higher rate than ever during peacetime, in spite of the current economic situation. The problem is the disconnectedness that occurs because of a lack of coordination.

One way to organize volunteers is by establishing a mobility club. The club has five elements: (1) rider-members - the elderly - and driver-members who have access to an automobile; (2) a ride dispatcher who would take and record calls from both driver and rider-members, matching those individuals whose potential trips are compatible (3) a system of photographic identification for all members; (4) a coordinating organization to provide continuity and supervision, handle finances, screen applicants, and enforce commitments made by drivers and riders; and (5) access to telephones. The system would operate in the following fashion. Drivers and riders would call in their trip expectations or desires well before the trip would occur (preferably at least a day before). The caller would give the origin and destination of the trip, and the approximate times when the initial leg and the return leg of the trip would be made.

The dispatcher would record this information, and when a potential match is found, the dispatcher calls one of the prospective parties. The party called would then negotiate the ride with the other member, exchanging more detailed information on the place and location of the pickup and arranging compensation, if any is requested. If negotiations fail, one of the parties would call the dispatcher to put their names back into the matching pool.

The rationale for establishing a "club" rather than a ride-sharing service open to the general public is not linked to the ability to match trip expectations among a large number of people; existing carpool-matching computer programs developed by the Federal Highway Administration may be adapted for general ride-sharing. The "club" concept is tied to the nature of drivers and riders who will use the system. Riders are interested in the "quality control" aspect of the system, that is, the reliability, courteousness, and trustworthiness of the drivers. This is especially important in the minds of the elderly, who feel more dependent on others and would be completely at the driver's mercy. The aged's lack of faith that a trip will be made successfully and safely is a primary reason (along with lack of funds) for not making unnecessary trips, even if conventional transit is available. Before entering someone else's private vehicle, the elderly individual wants to know more about the driver than his destination and time of arrival.

Almost as important to the driver is the nature of the rider he will be picking up. He wants someone who will not cause him undue delay by showing up late at a pickup and who will not cause difficulties as a passenger (as a drunkard might).

Another aspect that cannot be overlooked is that the predilection to volunteer is strengthened when a particular subgroup of the population has been identified. Few people are willing to perform a service for any member of the general public. By selecting the transportation-disadvantaged elderly as a target group, however, the potential driver is more able to visualize the type of potential rider he would assist, and would be more likely to volunteer to provide service.

There are also many practical legal and economic advantages to a club rather than a general rider-sharing program. Because it is not available to the general public it would be exempt from many of the economic regulations of the State public utilities commission (although it would not be exempt from safety regulations; therefore, part of the organization's job would be to require that driver-members maintain their vehicles in good working order and to monitor them). Also, certain undersirables may be legally denied membership to the club, as long as no one's civil rights are violated. This may be an easier task for small town and rural clubs, where "everybody knows everbody else" in the area.

In order to properly screen driver-member applicants, the organization may require that he be of at least a certain minimum age (possible 21), have at least three year's driving experience and a "clean" driving record (no serious violations). The elderly may be identified by any of the means described in earlier sections. To ensure that members will have a reliable service to use, the organization should develop a rule by which a member may be expelled if he fails to meet two (or perhaps, three) obligations within a year (unless he gives the other party some

notice if an emergency or mechanical failure causes the missed ride-share).

The costs of a mobility club are highly sensitive to whether the dispatchers are to be paid or not. Some illustrative cost figures for a small town (2500 population) club are given below.

TABLE 7

Start-up Costs		
Promotion	$1,000	
Photo Identification Equipment	1,100	
Miscellaneous (office furniture)	500	
	$2,600	
Annual Operating Items	paid disp.	vol. disp.
Dispatcher wages @ $3.50/hr., 50 hrs./wk. + 20% fringe	$10,500	---
Office rent @ $100/mo.	1,200	$1,200
Telephone @ $33/mo. (2 lines)*	400	400
Electricity @ $48/mo.	100	100
	$12,200	$1,700

*Assume two business phones. If the operation is run out of a private home, the club may qualify for considerably lower residential rates.

As far as could be determined, no mobility club has been financed under Title III or any of the DOT (Neither could it be determined that any club organized applied). The start-up and operating expenses should be met by charging an annual registration for rider-members (perhaps $2--3) and driver-members, too, if the system is designed so that they expect some compensation from riders. There should also be a charge for each use of the service, to discourage overuse (perhaps 10¢ per call, or per successful match). If the dispatchers are to be salaried employees, revenues will have to be solicited from outside sources. With a large pool of idle elderly available in most places, however, an adequate volunteer staff could be assembled. With each dispatcher

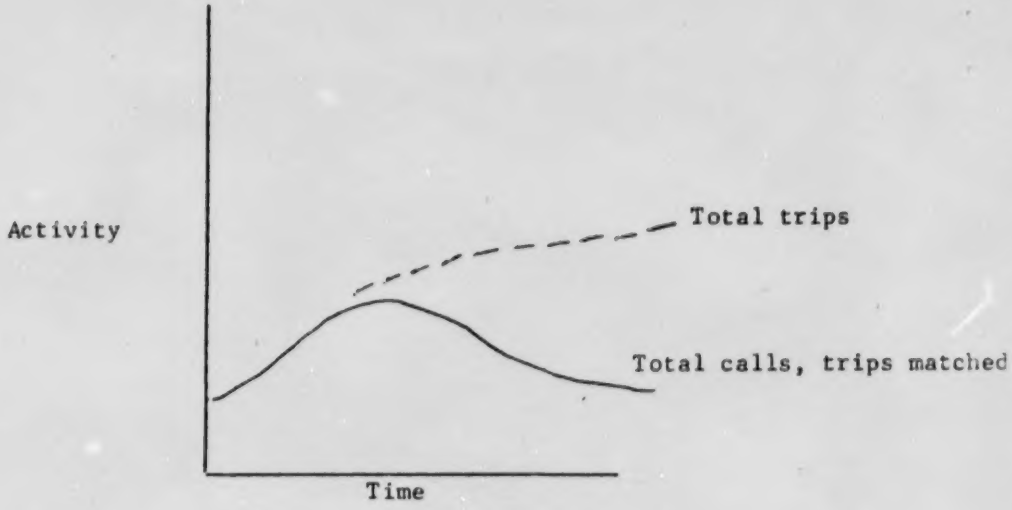
working one five-hour shift per week, a twelve-person team (ten regulars and two alternates) would suffice for a fifty-hour/week operation.

If drivers are to expect compensation, the organization should establish strict guidelines as to how much should be paid and when the payment should be made. The fare should include a flat pickup charge, reflecting the driver's willingness to drive to the rider's door and take him to this desired drop-off point, and a per-mile charge, so that longer trips would be discouraged. In no case should the total fare be much greater than the driver's operating cost of making the trip, or 10-15¢ per mile. A realistic fare structure might be 25¢ for pickup (covering both the initial and return legs of the trip) and 5¢ per mile. The driver, of course, may accept less, or even nothing, if he so desires. The per-mile part of the fare should be paid at the end of each leg of the trip (if the driver drives around between the two legs of the aged's trip, there might very well be confusion). Ideally, the pickup charge would be paid at the start of the initial leg, to simplify the calculation at the end of the leg, but since people do not like digging into their wallets or pocketbooks more than they have to, it will probably be paid with the per-mile fare at the end of the initial leg.

The size of the fare is important in that if it were greater than the cost of operating the vehicle, the service might be ruled a "for-hire" service, subject to local public utilities regulations (the state laws cover only those carriers which can serve nine or more passengers). The fare structure's legal status will not be resolved until a competing

carrier (probably a taxi company) brings a suit. If for-hire provisions are applicable, reports on indebtedness, tariffs, fares, financial status, and operations likely would have to be filed with the regulatory agency. Insurance premimus would also depend on whether the service was volunteer or for-hire.

One final word on the use of the service: at first, as people become accustomed to ride-sharing, they will use the service in increasing amounts, even for non-essential trips (if the fare is low). Eventually, however, many individuals will be matched who have many of the same regular trips desires and are compatible traveling companions. They will begin to contact each other without using the dispatcher. The dispatcher's activity is thus likely to tail off when the number of calls bypassing the dispatcher grows greater than the number of calls from new members.



A proper evaluation of the mobility club service, therefore, would require a survey of present and past users. It can take the credit for promoting rider-sharing, and it could rightfully claim it in support of a request for local financial assistance, if it is necessary.

Volunteer drivers may be reimbursed with funds authorized by Titles III and VII of the Older Americans Act of 1965, as Amended. Title III money may only be used towards defraying operating costs, while Title VII funds may be used for capital purchases (Title VII transportation grants are to be used solely to provide the elderly with better nutrition through meal delivery, for example). In regions where a comprehensive plan for the elderly (including a transportation component) has been developed, 90% Federal matching funds are available. Without a plan, only a 75% Federal share is forthcoming. During the past year, about $540,000 was disbursed in Title III grants and a little over $100,000 was paid out in Title VII grants. Some of the operations in North Carolina supported by Title III grants are listed in Table 8.

Table 8

TITLE III GRANTS IN NORTH CAROLINA

Region	County/Vehicle
A	Cherokee Indian Reservation 1-12 passenger van 1-15 passenger van
B	Henderson County 1-12 passenger van
C	McDowell County 1-15 passenger Rutherford County (Also drive in Polk) 1-15 passenger
D	No vehicles
E	Alexander County 1-9 passenger Caldwell County 1-11 passenger Catawba County 2-15 passenger
F	Mecklenburg County 1-15 passenger
G	Alamance County 3-9 passenger 1-12 passenger Davidson County 2-12 passenger Guilford County 3-12 passenger Rockingham County 2-12 passenger Yadkin County 2-12 passenger
H	Moore County 1-12 passenger
J	Durham County 1-30 passenger Johnston County 1-12 passenger Lee County 1-12 passenger Orange County 1-12 passenger Wake County 1-12 passenger

Table 8
(Continued)

K	Franklin-Vance-Warren CAP 2 vans
L	Northampton County 1-12 passenger
M	Cumberland County 1-14 passenger
N	No vehicles (all volunteer)
O	No vehicles (all volunteer)
P	No vehicles (all volunteer)
Q	No vehicles (all volunteer)
R	No vehicles (all volunteer)

VI. OTHER FUNDING OPPORTUNITIES

Table 9 summarizes other Federal sources of funds for elderly transit. Most can be applied only to special purpose transportation services, such as medical, educational, and library purposes. Table 10 lists major sources of funds available at the state and local levels. North Carolina currently has no such sources, and it would do well to consider some of the innovative financing techniques utilized by other states.

TABLE 9

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION FOR OLDER AMERICANS AS OF OCTOBER 1974

Department Statute Title & Section	Description	Appropriated Funding Level FY 74 (millions of $)	Provides Transport For	Elderly Share	User Eligibility Restrictions			Area Coverage	Capital Purchase
					Age	Income Work Status	Health/ Educ./Other		
A. DEPARTMENT OF HEALTH, EDUCATION & WELFARE									
1. Older Americans Act of 1965 as Amended Title III, All Section except 308	State & Community Programs on Aging	$ 96	Broad Sec. Services	Exclusive	None	Priority:DOC		Planning & Service Areas	Prohibited
Title III, Section 308	Model Projects	$ 5.7	Model Projects	Exclusive	None	None		Varies[3]	Prohibited
Title IV, Section 412	Transportation Study & Demonstration Projects	None	Demonstrations & Studies	Exclusive	None	None		Rural Emphasis[5]	Possible[6]
Title VII	Elderly Nutrition	$99.6	Nutrition Sites	Exclusive	60+[1]	One criterion DOC[4]		Urban or Rural[7]	Possible
Title IX	Elderly Community Service	$10	Project Activities	Exclusive	55+	OMB/Unemployed		Community	Possible
2. Public Health Service Act of 1944 as Amended Title III, Section 314(d)	Comprehensive Health Services	$90	Broad Health Services	Moderate	None	None		Community	Allowable with Approval
Title III, Section 314(e)	Community Health Centers	$209.1	Health Sites	Moderate	None	None[8]		Community[8]	
Title XII,	Emergency Medical Services	$27	Emergencies	Moderate	None	None	Critical Condition	Established Service Area	
3. Social Security Act of 1935 as Amended Title VI	Services for aged blind and disabled	$365 (FY 73)	Approved Services[9]	Predominantly	at least 60+	SSI Recipient or Applicant[24]		State	Prohibited
Title XIX	Medicaid	$5,255	Medical	Aged, Blind, Disabled, AFDC		SSI elibility criteria or more restrictive criteria at State option[23]		State	Prohibited

TABLE 9 (Cont.)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION FOR OLDER AMERICANS AS OF OCOTBER 1974

Department Statute Title & Section	Description	Appropriated Funding Level FY 74 (millions of $)	Provides Transport For	Elderly Share	User Eligibility Restrictions			Area Coverage	Capital Purchase
					Age	Income[2] Work Status	Health/ Educ./Other		
4. Mental Retardation Facilities & Community Mental Health Centers Construction Act of 1963 as Amended - Title II	Mental Health Centers		Mental Health Services	Moderate	None	None	None	Areas of 75,000 - 200,000	Allowable
5. Vocational Rehabilitation Act of 1973	Vocational Rehabilitation	$700	Any vocational rehab. services(incl. medical)	Small[10]	None	Unemployed	Handicapped but Employable	State	Allowable
6. Higher Education Act of 1965 as Amended Title I, Sections 101-102	Community Service	$ 14.3	Continuing Education	Moderate	Adult	None	Some College Education	Within reach of college[11]	Prohibited
7. Library Services and Construction Act of 1965 as Amended Title I	Library Services	$44.2	Library Services	Moderate	None	None	Priority: handicapped disadvantaged	Priority: poverty areas	Possible
8. Appalachian Regional Development Act of 1965 as Amended Title II, Section 202	Health Demonstrations	$41.8	Comprehensive Health Services	Large	None	None	None	Counties of 13 States in Appalachia	Allowable
Title III, Section 302(a)	Research, Demo's	$ 5.5	Demo. only		None	None	None		
B. DEPARTMENT OF TRANSPORTATION * 1. Urban Mass Transportation Act of 1964 as Amended Section 3	Capital Grants	$876						Urban[25]	Allowable
Section 6	Research & Demos	$79						Urban[25]	Allowable
Section 9	Technical Studies	$37						Urban	Allowable
Section 16(b)(2)	Grants to private non-profit bodies	$20 (FY '75)	Elderly & Handicapped					Urban[25]	Allowable
2. Federal-Aid Highway Act of 1973 Section 147	Rural Highway Demonstrations	$ 9.7 (FY '75)						Rural	Allowable except trail
* National Mass Transportation Assistance Act of 1974									

TABLE 9 (Cont.)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION FOR OLDER AMERICANS AS OF OCTOBER 1974

Department Statute Title & Section	Description	Appropriated Funding Level FY 74 (millions of $)	Provides Transport For	Elderly Share	User Eligibility Restrictions			Area Coverage	Capital Purchase
					Age	Income Work Status	Health/ Educ./Other		
C. DEPARTMENT OF AGRICULTURE									
1. Consolidated Farm and Rural Development Act of 1972 Title III, Section 360(a)	Loans for essential community facilities	$ 50[13]		Moderate				Rural up to 10,000	Allowable
D. DEPARTMENT OF LABOR									
1. Comprehensive Employment and Training Act of 1973: Title III	National Older Workers Program	$ 24	Work Duties	Exclusive	55+	OEO/"Chronically unemployed"	None	Varies: primarily city- or county-wide	Prohibited
E. OFFICE OF ECONOMIC OPPORTUNITY									
1. Economic Opportunity Act of 1964 as Amended Title II, Sections 212 and 221	Community Action Programs (CAP)	$358.8[14]	Broad Social Services	Moderate	None	OeO, but broad	None	Urban or Rural	Allowable with approval[15]
Title II, Section 222(a)(5)	Emergency Food & Medical Services	$ 22.4	Broad nutrition & medical services	Substantial[16]	None	None	Suffering from hunger	Most are run by CAPs	Allowable[17]
Title II, Section 222(a)(7)	Senior Opportunities & services	$ 10.2	Broad Social services	Exclusive	61+[18]	OEO, but flexible	None	Urban or Rural	Possible; use 221 monies
Title II, Sections 232(a) & (e)	Research & Pilot Programs	$ 35.6[19]	Special Needs	Moderate	61+	OEO	None	Rural Focus	Allowable with approval

TABLE 9 (Cont.)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION FOR OLDER AMERICANS AS OF OCOTBER 1974

Department Statute Title & Section	Description	Appropirated Funding Level FY 74 (millions of $)	Provides Transport For	Elderly Share	USER ELIGIBILITY RESTRICTIONS			Area Coverage	Capital Purchase
					Age	Income Work Status	Health/ Educ./Other		
F. VETERANS ADMINISTRATION									
1. Veteran Health Care and Expansion Act of 1973: Title I, Section 101(b)	Expanded Medical Care	$2,800 [20]	VA medical facilities	Substantial number [21]	None	None	Veteran	Nearest Appropriate Medical Facility	Leased Vehicles Allowed
G. ACTION									
1. Domestic Volunteer Service Act of 1973 Title II, Section 201	Retired Senior Volunteer Program	$ 15	Volunteer Stations	Exclusive	60+	None/Retired	Able to Work	Community	Allowable with prior approval
Title II, Section 211(a)	Foster grandparents program	$ 25	Program Duties	Exclusive	60+	OEO/retired	Able to help children	One or more communities	Allowable with prior approval
H. REVENUE SHARING									
1. State and Local Fiscal Assistance Act of 1972	Revenue Sharing	45,970	Funds can be used for any purpose [22]	Varies by State and Locality				States, local jurisdictions	Allowable

Source: Much of the data and material for this table was initially collected by Suanne Brooks of the Atlanta Regional Office of the Department of Health, Education & Welfare. This material was expanded to include a number of Acts not included in that compilation.

TABLE 9 (Cont.)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION FOR OLDER AMERICANS AS OF OCTOBER 1974

1. Plus spouse of any age.

2. The following symbols are used:
   "DOC" - Department of Commerce poverty guidelines, based on Census Bureau Statistics
   "OMB" - Office of Management and Budget poverty guidelines
   "OEO" - Office of Economic Opportunity poverty guidelines
   "SSI" - Supplemental Security Income levels

3. May be statewide or community-wide. Regulations specify that project area must have "large number" of elderly

4. Regulations allow the elderly to qualify on any or all of four grounds:
   (1) cannot afford to eat "adequately"
   (2) lacks skills to prepare well-balanced meals
   (3) has "limited mobility"
   (4) feels lonely and rejected

5. At least 50% of projects must be in States predominantly rural

6. AoA policy is to encourage capital purchase for demonstrations through joint DOT participation.

7. Both must have high proportion of elderly poor

8. Since these projects originated in the Office of Economic Opportunity, most are located in areas of low-income population

9. State services vary, and transportation is optional

10. An estimated 2.5% of those rehabilitated are age 65+

11. Emphasis on urban and suburan areas

12. Has not completed high school; has limited English skills, lives in area with a culture different from his own

13. Water and waste funded separately

14. This was a seven-month appropriation

15. Survey of existing resources must first be taken. Equipment costing $500 or more must have regional approval

16. Focus is on elderly and children, although program also includes families and individuals generally

17. But only if vehicles extend the coverage of existing service programs. Emphasis is on better use of existing vehicles

18. For general services. For employment and volunteer services, the age requirement drops to 55+

19. This figure represents 20% of OEO "local initiative money" appropriated for a seven-month period and available for Community Action Programs. Thus, it represents not additional money, but part of the funds listed above for Title II, Sections 212 and 221

20. Of this amount, $29.2 million was budgeted for travel

21. As of June 30, 1974 there were 29,265,000 veterans, of whom 2,125,000 (7.3%) were 65 years of age or older

22. State and local governments are allowed broad use of available funds. Two of eight suggested priority categories are "Public Transportation" and "Social Services for the Poor or Aged." These two categories accounted, respectively, for 15% and 3% of funds expended in the only period thus far reported, January 1, 1972 - June 30, 1973

23. Categorically needy; no upper income limit when deducting incurred medical expenses (medically needy)

24. Includes potentials, and formers at State option, and those having State supplemental payments. Aged potential recipients are eligible at age 60 or older.

25. Flexibly interpreted on a project basis but when was below 2500, not generally considered

Table 10

MAJOR STATE LOCAL AND PRIVATE FUNDING SOURCES
AS OF OCTOBER 1974 1/

A. STATE

Type of Funding	State Providing It (Example)	Description
1. Direct Budget Allocation	All states	Funds for social services as part of general funding - state and local levels
2. Special Funds	Illinois	In 1972 state authorized grants for mass transit facilities. One of three designated purposes: to aid movement of persons unable to drive.
3. Bond Issues	Massachusetts	State pays 90% of yearly debt service on bonds authorized to finance mass transit equipment.
4. Special Taxation	Michigan	In 1972 state made available part of a motor fuel increase for public transit as advances or loans for a period of 2-1/2 years. (Referendum will decide further use of the funds.)
	Massachusetts	4¢ of tax on cigarettes pays for extra-revenue expenses of the Massachusetts Bay Transportation Authority, and other authorities.
5. Sales Taxes	Florida	2¢ of the 8¢ state gasoline tax may go for establishment and operation of a transportation system. 2/
	California	In 1972, gasoline added to sales tax base. 0.25% of sales tax revenues (est. $142-150 million annually) are set aside in a Local Transportation Fund. Monies can be used for development system, but amounts for operating expenses are limited.
6. Utility Taxes	N.A.	
7. Tax Relief 3/	16 States	Motor fuel exemptions or refunds.
	27 States	Property, Income and/or Bond Exemptions.

Table 10 (Cont.)

8.	Lottery	Pennsylvania 4/	Free statewide transit provided elderly undergo statutory guidelines to aid elderly and individuals. 25% of new revenue goes to program aid the elderly.

* Footnotes appear at end of section.

Table 10 (Cont.)

ILLUSTRATIVE EXAMPLES OF STATE LOCAL AND PRIVATE FUNDING SOURCES
AS OF OCTOBER 1974

B. Local (Tax Sources Expressly Authorized for Transit Support)[5/]

Type of Tax	States Authorizing the Tax
1. Property Tax	Arizona, Colorado, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Nebraska, North Dakota, Ohio, Oregon, Utah, Washington
2. Motor Vehicle Tax	California, Hawaii, Washington
3. Tax on Gross Receipts of Parking Lots	California
4. Gasoline Sales Tax	California, Hawaii, Illinois
5. Transaction (Sales) and Use Tax	California, Washington, Oregon
6. Highway Fund Allocations	Indiana
7. Cigarette Tax Fund	Indiana
8. Ad valorem Tax	Oregon
9. Business License Tax	Oregon, Washington
10. New Income Tax	Oregon
11. Public Utilities	Washington
12. Payroll or Wage Tax	Oregon, Pennsylvania[6/]
13. Special Transit District [7/]	California, Florida, (Pinellas County)
14. Income Tax, Deductible Contribution [8/]	Pennsylvania [8/]

VII. A WORD ON EVALUATION OF ELDERLY TRANSIT

How can the success or failure of an elderly transit service be determined? Certainly not on a balance sheet, since the benefits it produces are not realized as monetary income to the coordinating agency. Elderly transit provides two types of services to two segments of the elderly population: it is the primary mode of travel for those who don't have access to an automobile, and it is a backup service for those who do normally travel by car. Simply scanning rider-ship figures does not constitute a fair evaluation of elderly transit. One must know: (1) what proportion of the car-less elderly are using the system, and how often; and (2) what share of the car-owning elderly have knowledge of the system and would use it as an alternative when necessary. Surveys of a sample of each sub-population would get at this information.

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U.S. Dept. of Transportation, Rural Transit Operations and Management, 1974.

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Yukubousky, Richard and Donn Fichter, Mobility Club: a Grass-Roots Rural and Small Town Transport Concept, August, 1974.

NOTE ON SOURCES

Textual information was derived from all of the sources in the Bibliography, but a few stand out as having contributed to a particularly large share of this report. Much of the material in Sections II and III were taken from U.S.D.O.T., Rural Transit Operations and Management. The discussion on the use of school buses and on reduced-fare programs borrowed heavily from U.S.D.H.E.W., Transportation for the Elderly: the State of the Art. The mobility club concept is that presented in the paper by Yukubousky and Fichter. The sources for the tabular data are listed below:

Figure 1: U.S.D.O.T., Rural Transit Operations and Management, pp. 9-12.
Figure 2: N.C. Public Utilities Commission, Eighth and Ninth Statistical and Analytical Reports.
Figure 3: Southeastern Federal Regional Council, Expanding Metro Mobility.
Figure 4: U.S.D.H.E.W., Transportation for the Elderly: the State of the Art, p. 16.
Figure 5: U.S.D.H.E.W., p. 19.
Figure 6: U.S.D.H.E.W., P. 32.
Figure 7: Yukubousky and Fichter, The Mobility Club Concept.
Figure 8: N.C. Governor's Coordinating Council on the Aging.
Figure 9: U.S.D.H.E.W., pp. 114-118.
Figure 10: U.S.D.H.E.W., pp. 127-128.